

03-15-SEQLIST-1010
SEQUENCE LISTING

<110> Sanofi Pasteur, Inc.

<120> METHODS FOR PURIFYING PERTUSSIS TOXIN AND PEPTIDES USEFUL
THEREFOR

<130> API-03-15

<140> 10/579,655

<141> 2006-05-18

<150> 60/523,881

<151> 2003-11-20

<150> PCT/US2004/038700

<151> 2004-11-18

<160> 415

<170> PatentIn version 3.5

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<212> PRT

<213> Gymnea sylvestre

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Asn Gly Ser Phe Ser Gly Phe

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Asn Gly Ser Phe Ser Gly Cys

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Asp Gly Ser Phe Ser Gly Phe

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Asn Met Arg Ile Glu Thr Pro Asn Asn Ile Arg Lys Asp Ala

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03-15-SEQLIST-1010

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Ser	Thr	Met	Asn	Thr	Asn	Arg	Met	Asp	Ile	Gln	Arg	Leu	Met	Thr	Asn
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His	Val	Lys	Arg	Asp	Ser	Ser	Pro	Gly	Ser	Ile	Asp	Ala
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Asp	Arg	Pro	His	Arg	Ser	Arg	Leu	Ser	Ile	Asp	Asp	Asp	Ala
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Leu Ala Ile Asp Ser Tyr Trp Asp His Thr Leu Arg Asp Ala

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<210> 9

<211> 34

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<213> Gymnea sylvestre

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Ser Gly Cys Val Lys Lys Asp Glu Leu Cys Ala Arg Trp Asp Leu Val

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Cys Cys Glu Pro Leu Glu Cys Ile Tyr Thr Ser Glu Leu Tyr Ala Thr

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Cys Gly

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<213> *Gymnea sylvestre*

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Ser	Gly	Cys	Val	Lys	Lys	Asp	Glu	Leu	Cys	Glu	Leu	Ala	Val	Asp	Glu
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Cys	Cys	Glu	Pro	Leu	Glu	Cys	Phe	Gln	Met	Gly	His	Gly	Phe	Lys	Arg
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Cys Gly

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<212> PRT

<213> *Gymnea sylvestre*

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03-15-SEQLIST-1010

Ser Gly Cys Val Lys Lys Asp Glu Leu Cys Ser Gln Ser Val Pro Met

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Cys Cys Glu Pro Leu Glu Cys Lys Trp Phe Asn Glu Asn Tyr Gly Ile

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Cys Gly Ser

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<210> 12

<211> 34

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<213> Gymnea sylvestre

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Ser Gly Cys Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Ile Asp Glu

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Cys Gly

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03-15-SEQLIST-1010

<211> 35

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<213> Gymnea sylvestre

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Gln Gln Cys Val Lys Lys Asp Glu Leu Cys Ile Pro Tyr Tyr Leu Asp

1 5 10 15

Cys Cys Glu Pro Leu Glu Cys Lys Lys Val Asn Trp Trp Asp His Lys

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Cys Ile Gly

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03-15-SEQLIST-1010

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Glu Pro Leu Glu Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys

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agcggcagtt ctgggtctag c 141

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Ser Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Ala Asn Ala Pro
35 40 45

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His His His His His His

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Asp Ala Asn Ala Pro Lys

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atgatga 127

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<213> *Gymnea sylvestre*

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catcatcatc atgctagatc t 81

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<213> *Gymnea sylvestre*

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Val Lys Lys Asp Glu Leu Cys Ala Gly Ser Val Gly His Cys Cys Glu

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25

30

Pro Leu Glu Cys Leu Arg Arg Phe Leu Asn Leu Arg Trp Cys Gly Ser

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Gly Ser Ser Gly Ser Ser

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03-15-SEQLIST-1010

<210> 27

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<213> *Gymnema sylvestre*

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Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
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Val Lys Lys Asp Glu Leu Cys Ile Val Met Arg Ala Pro Cys Cys Glu
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Pro Leu Glu Cys Leu Arg Arg Tyr Met Leu Lys His Met Cys Gly Ser
35 40 45

Gly Ser Ser Gly Ser Ser
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<210> 28

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<213> *Gymnea sylvestre*

<400> 28

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys

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Val Lys Lys Asp Glu Leu Cys Lys Ala Phe Arg Tyr Ser Cys Cys Glu
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Pro Leu Glu Cys Leu Arg Lys Trp Leu Lys Ala Arg Phe Cys Gly Ser
35 40 45

Gly Ser Ser Gly Ser Ser
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<213> Gymnea sylvestre

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Val Lys Lys Asp Glu Leu Cys Leu Arg Ser Ser Ile Asp Cys Cys Glu
20 25 30

Pro Leu Glu Cys Leu Tyr Lys Trp Met Gln Arg Arg Leu Cys Gly Ser
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Gly Ser Ser Gly Ser Ser

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Pro Leu Glu Cys Leu Leu Glu Met Leu Glu Arg Lys Arg Cys Gly Ser

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Gly Ser Ser Gly Ser Ser

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Val Lys Lys Asp Glu Leu Cys Met Ser Met Ala Cys Val Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Lys Tyr His Gly Tyr Phe Trp Leu Cys Gly Ser Gly
 35 40 45

Ser Ser Gly Ser Ser
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03-15-SEQLIST-1010

Val Lys Lys Asp Glu Leu Cys Ala Val Trp Phe Asp Val Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Thr Tyr Gln Ser Gly Tyr Tyr Trp Leu Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser
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Gly Ser Ser Gly Ser Ser

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Pro Leu Glu Cys Ile Tyr Thr Ser Glu Leu Tyr Ala Thr Cys Gly Ser

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Gly Ser Ser Gly Ser Ser

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03-15-SEQLIST-1010

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1 5 10 15

Val Lys Lys Asp Glu Leu Cys Val Phe Tyr Phe Pro Asn Cys Cys Glu

20 25 30

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35 40 45

Gly Ser Ser Gly Ser Ser

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<210> 36

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<400> 36

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys

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Val Lys Lys Asp Glu Leu Cys Met Ser Met Ala Cys Val Cys Cys Glu

20 25 30

Pro Leu Glu Cys Lys Tyr His Gly Tyr Phe Trp Leu Cys Gly Ser Gly
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Ser Ser Gly Ser Ser
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<210> 37

<211> 54

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<213> Gymnea sylvestre

<400> 37

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
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Val Lys Lys Asp Glu Leu Cys Thr Thr Ala Ser Lys Ser Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Lys Trp Thr Asn Glu His Phe Gly Thr Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser
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03-15-SEQLIST-1010

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Pro Leu Glu Cys Lys Trp Phe Asn Glu Asn Tyr Gly Ile Cys Gly Ser
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Gly Ser Ser Gly Ser Ser
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03-15-SEQLIST-1010

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20 25 30

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35 40 45

Gly Ser Ser Gly Ser Ser

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Gly Ser Ser Gly Ser Ser

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<213> *Gymnea sylvestre*

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Pro Leu Glu Cys Tyr Tyr Thr Gly Trp Tyr Trp Ala Cys Gly Ser Gly

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Ser Ser Gly Ser Ser

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Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Val Asp Glu Cys Cys Glu

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Pro Leu Glu Cys Phe Gln Met Gly His Gly Phe Lys Arg Cys Gly Ser

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Gly Ser Ser Gly Ser Ser

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<213> *Gymnea sylvestre*

<400> 43

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03-15-SEQLIST-1010

Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Val Asp Glu Cys Cys Glu
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Pro Leu Glu Cys Thr Lys Gly Asp Leu Gly Phe Arg Lys Cys Gly Ser
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Gly Ser Ser Gly Ser Ser
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<213> *Gymnea sylvestre*

<400> 44

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Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Ile Asp Val Cys Cys Glu
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Pro Leu Glu Cys Leu Gly His Gly Leu Gly Tyr Ala Tyr Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser
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<210> 45

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<213> *Gymnea sylvestre*

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Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
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Pro Leu Glu Cys Leu Gly His Gly Leu Gly Tyr Ala Tyr Cys Gly Ser
35 40 45

Gly Ser Ser Gly Ser Ser
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<213> *Gymnea sylvestre*

03-15-SEQLIST-1010

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Val Lys Lys Asp Glu Leu Cys Asn Trp Val Thr Pro Met Arg Cys Glu
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Pro Leu Glu Cys Leu Gly His Gly Leu Gly Tyr Ala Tyr Cys Gly Ser
35 40 45

Gly Ser Ser Gly Ser Ser
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<213> Gymnea sylvestre

<400> 47

Met Gly Arg Gly Ser His His His His His His Ala Arg Ser Asp Trp
1 5 10 15

Glu Leu Ser Pro Pro His Val Ala Ile Thr Thr Arg His Leu Ile Asn

20 03-15-SEQLIST-1010 30
25

Cys Thr Asp Gly Pro Leu Leu Arg Asp Ala Asn Ala Pro Lys Ala Ser
35 40 45

Ala Ile
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<210> 48
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Met Gly Arg Gly Ser His His His His His His Ala Arg Ser Leu Asn
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Gly Glu Ser Thr Ser Asn Ile Leu Thr Thr Ser Arg Lys Val Thr Glu
20 25 30

Trp Thr Gly Tyr Thr Ala Ser Val Asp Ala Asn Ala Pro Lys Ala Ser
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Ala Ile
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<210> 49

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<222> (41)..(41)

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Thr Trp His His Leu Ala Asp Thr Val Thr Thr Lys Asn Arg Lys Cys

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30

Thr Asp Ser Tyr Ile Gly Trp Asn Xaa Ala Asn Ala Pro Lys Ala Ser

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Ala Ile

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Met Gly Arg Gly Ser His His His His His His Ala Arg Ser Ile Ile

1 5 10 15

Val Ile His Asn Ala Ile Gln Thr His Thr Pro His Gln Val Ser Ile

20 25 30

Trp Cys Pro Pro Lys His Asn Arg Asp Ala Asn Ala Pro Lys Ala Ser

35 40 45

Ala Ile

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<210> 51

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<213> Gymnea sylvestre

<400> 51

Met Gly Arg Gly Ser His His His His His His Ala Arg Ser Ser His

1 5 10 15

03-15-SEQLIST-1010

Cys Arg His Arg Asn Cys His Thr Ile Thr Arg Gly Asn Met Arg Ile
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Glu Thr Pro Asn Asn Ile Arg Lys Asp Ala Asn Ala Pro Lys Ala Ser
 35 40 45

Ala Ile
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<400> 52

Met Gly Arg Gly Ser His His His His His His Ala Arg Ser Thr Met
 1 5 10 15

Asn Thr Asn Arg Met Asp Ile Gln Arg Leu Met Thr Asn His Val Lys
 20 25 30

Arg Asp Ser Ser Pro Gly Ser Ile Asp Ala Asn Ala Pro Lys Ala Ser
 35 40 45

Ala Ile

50

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<213> Gymnea sylvestre

<400> 53

Met Gly Arg Gly Ser His His His His His His Ala Arg Ser Leu Ser

1 5 10 15

Ala Leu Arg Arg Thr Glu Arg Thr Trp Asn Thr Ile His Gln Gly His

20 25 30

His Leu Glu Trp Tyr Pro Pro Ala Asp Ala Asn Ala Pro Lys Ala Ser

35 40 45

Ala Ile

50

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03-15-SEQLIST-1010

<213> Gymnea sylvestre

<400> 54

Met Gly Arg Gly Ser His His His His His His Ala Arg Ser Trp Thr
1 5 10 15

Ser Met Gln Gly Glu Thr Leu Trp Arg Thr Asp Arg Leu Ala Thr Thr
20 25 30

Lys Thr Ser Met Ser His Pro Pro Asp Ala Asn Ala Pro Lys Ala Ser
35 40 45

Ala Ile
50

<210> 55

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<212> PRT

<213> Gymnea sylvestre

<400> 55

Met Gly Arg Gly Ser His His His His His His Ala Arg Ser Asn Val
1 5 10 15

03-15-SEQLIST-1010

Ile Pro Leu Asn Glu Val Trp Tyr Asp Thr Gly Trp Asp Arg Pro His

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25

30

Arg Ser Arg Leu Ser Ile Asp Asp Asp Ala Asn Ala Pro Lys Ala Ser

35

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45

Ala Ile

50

<210> 56

<211> 49

<212> PRT

<213> Gymnea sylvestre

<400> 56

Met Gly Arg Gly Ser His His His His His His Ala Arg Ser Cys Leu

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Ala Thr Arg Asn Gly Phe Val Met Asn Thr Asp Arg Gly Thr Tyr Val

20

25

30

Lys Arg Pro Thr Val Leu Gln Asp Ala Asn Ala Pro Lys Ala Ser Ala

35

40

45

Ile

<210> 57

<211> 50

<212> PRT

<213> Gymnea sylvestre

<400> 57

Met Gly Arg Gly Ser His His His His His His Ala Arg Ser Trp Gly
1 5 10 15

Leu Ser Gly Thr Gln Thr Trp Lys Ile Thr Lys Leu Ala Thr Arg Leu
20 25 30

His His Pro Glu Phe Glu Thr Asn Asp Ala Asn Ala Pro Lys Ala Ser
35 40 45

Ala Ile
50

<210> 58

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<213> Gymnea sylvestre

03-15-SEQLIST-1010

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Met Gly Arg Gly Ser His His His His His His Ala Arg Ser Trp Arg
1 5 10 15

Trp His Asn Trp Gly Leu Ser Asp Thr Val Ala Ser His Pro Asp Ala
20 25 30

Ser Asn Ser Leu Asn Met Met Tyr Asp Ala Asn Ala Pro Lys Ala Ser
35 40 45

Ala Asn
50

<210> 59

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<213> Gymnea sylvestre

<400> 59

Met Gly Arg Gly Ser His His His His His His Leu Asp Leu Trp Gly
1 5 10 15

Pro Pro Ser Gly Ser Pro Arg Thr Arg Ser Thr Thr Gly Thr Ser Thr
20 25 30

03-15-SEQLIST-1010

Thr Ser Ser Pro Ser Thr Pro Gly Thr Leu Thr Leu Arg Arg His Pro
 35 40 45

His

<210> 60

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<213> Gymnea sylvestre

<400> 60

Met Gly Arg Gly Ser His His His His His His Ala Arg Ser Trp Gln
 1 5 10 15

Pro Glu Val Lys Met Ser Ser Leu Val Asp Thr Ser Gln Thr Val Gly
 20 25 30

Ala Ala Val Glu Thr Arg Thr Thr Asp Ala Asn Ala Pro Lys Ala Ser
 35 40 45

Ala

03-15-SEQLIST-1010

<210> 61

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<212> PRT

<213> Gymnea sylvestre

<400> 61

Met Gly Arg Gly Ser His His His His His His Ala Arg Ser Trp Arg
1 5 10 15

Asp Thr Arg Lys Leu His Met Arg His Tyr Phe Pro Leu Ala Ile Asp
20 25 30

Ser Tyr Trp Asp His Thr Leu Arg Asp Ala Asn Ala Pro Lys Ala Ser
35 40 45

Ala Ile
50

<210> 62

<211> 50

<212> PRT

<213> Gymnea sylvestre

<400> 62

Met Gly Arg Gly Ser His His His His His His Ala Arg Ser Trp Thr
Page 40

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1 5 10 15

Ser Met Gln Gly Glu Thr Leu Trp Arg Thr Asp Arg Leu Ala Thr Thr
20 25 30

Lys Thr Ser Met Ser His Pro Pro Asp Ala Asn Ala Pro Lys Ala Ser
35 40 45

Ala Ile
50

<210> 63

<211> 50

<212> PRT

<213> Gymnea sylvestre

<400> 63

Met Gly Arg Gly Ser His His His His His His His Ala Arg Ser Pro
1 5 10 15

Leu Trp Tyr His Tyr Asn Cys Trp Asp Thr Ile Cys Leu Ala Asp Trp
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Leu Lys Asp Arg Pro His Gly Val Tyr Asp Ala Asn Ala Pro Lys Ala

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Ser Ala

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<210> 64

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<213> *Gymnea sylvestre*

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Met Gly Arg Gly Ser His His His His His His Ala Arg Ser Val Gly

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Thr Thr Ile Arg Ile Ala Gln Asp Thr Glu His Tyr Arg Asn Val Tyr

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25

30

His Lys Leu Ser Gln Tyr Ser Arg Asp Ala Asn Ala Pro Lys Ala Ser

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40

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Ala Ile

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<210> 65

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03-15-SEQLIST-1010

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<213> Gymnea sylvestre

<400> 65

Met Gly Arg Gly Ser His His His His His His Ala Arg Ser Val Gly

1 5 10 15

Thr Thr Ile Arg Ile Ala Gln Asp Thr Glu His Tyr Arg Asn Val Tyr

20 25 30

His Lys Leu Ser Gln Tyr Ser Arg Asp Ala Asn Ala Pro Lys Ala Ser

35 40 45

Ala Ile

50

<210> 66

<211> 50

<212> PRT

<213> Gymnea sylvestre

<400> 66

Met Gly Arg Gly Ser His His His His His His Ala Arg Ser Asn Val

1 5 10 15

03-15-SEQLIST-1010

Ile Pro Leu Asn Glu Val Trp Tyr Asp Thr Gly Trp Asp Arg Pro His
 20 25 30

Arg Ser Arg Leu Ser Ile Asp Asp Asp Ala Asn Ala Pro Lys Ala Ser
 35 40 45

Ala Ile
 50

<210> 67
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 <213> *Gymnema sylvestre*

<400> 67

Arg Ser Ser His Cys Arg His Arg Asn Cys His Thr Ile Thr Arg Gly
 1 5 10 15

Asn Met Arg Ile Glu Thr Pro Asn Asn Ile Arg Lys Asp Ala Lys
 20 25 30

<210> 68
 <211> 30
 <212> PRT
 <213> *Gymnema sylvestre*

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<400> 68

Arg	Ser	Ser	His	Cys	Arg	His	Arg	Asn	Cys	His	Thr	Ile	Thr	Arg	Gly
1				5					10					15	

Asn	Met	Arg	Ile	Glu	Thr	Pro	Asn	Asn	Ile	Arg	Lys	Asp	Ala
			20					25					30

<210> 69

<211> 30

<212> PRT

<213> *Gymnema sylvestre*

<400> 69

Arg	Ser	Thr	Met	Asn	Thr	Asn	Arg	Met	Asp	Ile	Gln	Arg	Leu	Met	Thr
1				5					10					15	

Asn	His	Val	Lys	Arg	Asp	Ser	Ser	Pro	Gly	Ser	Ile	Asp	Ala
			20					25					30

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<211> 30

<212> PRT

<213> *Gymnema sylvestre*

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<400> 70

Arg Ser Asn Val Ile Pro Leu Asn Glu Val Trp Tyr Asp Thr Gly Trp
 1 5 10 15

Asp Arg Pro His Arg Ser Arg Leu Ser Ile Asp Asp Asp Ala
 20 25 30

<210> 71

<211> 30

<212> PRT

<213> *Gymnema sylvestre*

<400> 71

Arg Ser Trp Arg Asp Thr Arg Lys Leu His Met Arg His Tyr Phe Pro
 1 5 10 15

Leu Ala Ile Asp Ser Tyr Trp Asp His Thr Leu Arg Asp Ala
 20 25 30

<210> 72

<211> 35

<212> PRT

<213> *Gymnema sylvestre*

<400> 72

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Ser Gly Cys Val Lys Lys Asp Glu Leu Cys Ala Arg Trp Asp Leu Val
 1 5 10 15

Cys Cys Glu Pro Leu Glu Cys Ile Tyr Thr Ser Glu Leu Tyr Ala Thr
 20 25 30

Cys Gly Lys
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<210> 73

<211> 34

<212> PRT

<213> *Gymnema sylvestre*

<400> 73

Ser Gly Cys Val Lys Lys Asp Glu Leu Cys Ala Arg Trp Asp Leu Val
 1 5 10 15

Cys Cys Glu Pro Leu Glu Cys Ile Tyr Thr Ser Glu Leu Tyr Ala Thr
 20 25 30

Cys Gly

<210> 74

<211> 34

<212> PRT

<213> *Gymnema sylvestre*

<400> 74

Ser Gly Cys Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Val Asp Glu

1 5 10 15

Cys Cys Glu Pro Leu Glu Cys Phe Gln Met Gly His Gly Phe Lys Arg

20 25 30

Cys Gly

<210> 75

<211> 35

<212> PRT

<213> *Gymnema sylvestre*

<400> 75

Ser Gly Cys Val Lys Lys Asp Glu Leu Cys Ser Gln Ser Val Pro Met

1 5 10 15

Cys Cys Glu Pro Leu Glu Cys Lys Trp Phe Asn Glu Asn Tyr Gly Ile

20 25 30

Cys Gly Ser

35

<210> 76

<211> 34

<212> PRT

<213> *Gymnema sylvestre*

<400> 76

Ser Gly Cys Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Ile Asp Glu

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Cys Cys Glu Pro Leu Glu Cys Thr Lys Gly Asp Leu Gly Phe Arg Lys

20

25

30

Cys Gly

<210> 77

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic sequence, no source organism

<400> 77

catgccatgg gacgtggctc acatcatc

28

<210> 78

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic sequence, no source organism

<400> 78

gggttaaata gcggatgcct tcggagcgtt agcgtc

36

<210> 79

<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic sequence, no source organism

<400> 79

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38

<210> 80

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic sequence, no source organism

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<210> 81

<211> 60

<212> PRT

<213> *Gymnea sylvestre*

<400> 81

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys

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Val Lys Lys Asp Glu Leu Cys Ala Gly Ser Val Gly His Cys Cys Glu

20

25

30

Pro Leu Glu Cys Leu Arg Arg Phe Leu Asn Leu Arg Trp Cys Gly Ser

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Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ile

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<210> 82

<211> 60

<212> PRT

<213> *Gymnea sylvestre*

<400> 82

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
 1 5 10 15

Val Lys Lys Asp Glu Leu Cys Ile Val Met Arg Ala Pro Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Leu Arg Arg Tyr Met Leu Lys His Met Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ile
 50 55 60

<210> 83

<211> 60

<212> PRT

<213> *Gymnea sylvestre*

<400> 83

03-15-SEQLIST-1010

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
1 5 10 15

Val Lys Lys Asp Glu Leu Cys Lys Ala Phe Arg Tyr Ser Cys Cys Glu
20 25 30

Pro Leu Glu Cys Leu Arg Lys Trp Leu Lys Ala Arg Phe Cys Gly Ser
35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ile
50 55 60

<210> 84

<211> 58

<212> PRT

<213> *Gymnea sylvestre*

<400> 84

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
1 5 10 15

Val Lys Lys Asp Glu Leu Cys Leu Arg Ser Ser Ile Asp Cys Cys Glu
20 25 30

03-15-SEQLIST-1010

Pro Leu Glu Cys Leu Tyr Lys Trp Met Gln Arg Arg Leu Cys Gly Ser

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Gly Ser Ser Gly Ser Ser Leu Val Ala Ser

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<210> 85

<211> 60

<212> PRT

<213> Gymnea sylvestre

<400> 85

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys

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Val Lys Lys Asp Glu Leu Cys Trp Pro Arg Arg His Lys Cys Cys Glu

20

25

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Pro Leu Glu Cys Leu Leu Glu Met Leu Glu Arg Lys Arg Cys Gly Ser

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Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ile

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<210> 86

03-15-SEQLIST-1010

<211> 58

<212> PRT

<213> Gymnea sylvestre

<400> 86

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
1 5 10 15

Val Lys Lys Asp Glu Leu Cys Met Ser Met Ala Cys Val Cys Cys Glu
20 25 30

Pro Leu Glu Cys Lys Tyr His Gly Tyr Phe Trp Leu Cys Gly Ser Gly
35 40 45

Ser Ser Gly Pro Ser Ser Ile Arg Tyr Leu
50 55

<210> 87

<211> 60

<212> PRT

<213> Gymnea sylvestre

<400> 87

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
1 5 10 15

03-15-SEQLIST-1010

Val Lys Lys Asp Glu Leu Cys Ala Val Trp Phe Asp Val Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Thr Tyr Gln Ser Gly Tyr Tyr Trp Leu Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ile
 50 55 60

<210> 88

<211> 60

<212> PRT

<213> *Gymnea sylvestre*

<400> 88

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
 1 5 10 15

Val Lys Lys Asp Glu Leu Cys Glu Pro Trp Tyr Trp Arg Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Val Tyr Thr Ser Gly Tyr Tyr Tyr Ser Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ile
 50 55 60

<210> 89

<211> 55

<212> PRT

<213> Gymnea sylvestre

<400> 89

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
 1 5 10 15

Val Lys Lys Asp Glu Leu Cys Ala Arg Trp Asp Leu Val Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Ile Tyr Thr Ser Glu Leu Tyr Ala Thr Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser Gly
 50 55

<210> 90

<211> 60

<212> PRT

<213> *Gymnema sylvestre*

<400> 90

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
 1 5 10 15

Val Lys Lys Asp Glu Leu Cys Val Phe Tyr Phe Pro Asn Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Arg Trp Val Asn Asp Asn Tyr Gly Trp Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ile
 50 55 60

<210> 91

<211> 59

<212> PRT

<213> *Gymnema sylvestre*

<400> 91

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
 1 5 10 15

Val Lys Lys Asp Glu Leu Cys Met Ser Met Ala Cys Val Cys Cys Glu
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20 25 30

Pro Leu Glu Cys Lys Tyr His Gly Tyr Phe Trp Leu Cys Gly Ser Gly
35 40 45

Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ile
50 55

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<211> 60

<212> PRT

<213> *Gymnema sylvestre*

<400> 92

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
1 5 10 15

Val Lys Lys Asp Glu Leu Cys Thr Thr Ala Ser Lys Ser Cys Cys Glu
20 25 30

Pro Leu Glu Cys Lys Trp Thr Asn Glu His Phe Gly Thr Cys Gly Ser
35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ile

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<210> 93

<211> 60

<212> PRT

<213> *Gymnema sylvestre*

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Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys

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Val Lys Lys Asp Glu Leu Cys Ser Gln Ser Val Pro Met Cys Cys Glu

20

25

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Pro Leu Glu Cys Lys Trp Phe Asn Glu Asn Tyr Gly Ile Cys Gly Ser

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Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ile

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<211> 60

<212> PRT

<213> *Gymnema sylvestre*

<400> 94

03-15-SEQLIST-1010

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
1 5 10 15

Val Lys Lys Asp Glu Leu Cys Ala Arg Trp Asp Leu Val Cys Cys Glu
20 25 30

Pro Leu Glu Cys Ile Tyr Thr Ser Glu Leu Tyr Ala Thr Cys Gly Ser
35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ile
50 55 60

<210> 95

<211> 60

<212> PRT

<213> *Gymnema sylvestre*

<400> 95

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
1 5 10 15

Val Lys Lys Asp Glu Leu Cys Ala Arg Trp Asp Leu Val Cys Cys Glu
20 25 30

03-15-SEQLIST-1010

Pro Leu Glu Cys Leu Gly His Gly Leu Gly Tyr Ala Tyr Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ile
 50 55 60

<210> 96

<211> 59

<212> PRT

<213> *Gymnema sylvestre*

<400> 96

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
 1 5 10 15

Val Lys Lys Asp Glu Leu Cys Met Trp Ser Arg Glu Val Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Tyr Tyr Thr Gly Trp Tyr Trp Ala Cys Gly Ser Gly
 35 40 45

Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ile
 50 55

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<210> 97

<211> 57

<212> PRT

<213> *Gymnema sylvestre*

<400> 97

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
1 5 10 15

Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Val Asp Glu Cys Cys Glu
20 25 30

Pro Leu Glu Cys Phe Gln Met Gly His Gly Phe Lys Arg Cys Gly Ser
35 40 45

Gly Ser Ser Gly Ser Ser Gly Ser Asn
50 55

<210> 98

<211> 60

<212> PRT

<213> *Gymnema sylvestre*

<400> 98

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys

1 5 15

Val Lys Lys Asp Gly Leu Cys Trp Pro Arg Arg His Lys Cys Cys Glu
20 25 30

Pro Leu Glu Cys Leu Leu Glu Met Leu Glu Arg Lys Arg Cys Gly Ser
35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ile
50 55 60

<210> 99

<211> 60

<212> PRT

<213> *Gymnema sylvestre*

<400> 99

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
1 5 10 15

Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Val Asp Glu Cys Cys Glu
20 25 30

Pro Leu Glu Cys Thr Lys Gly Asp Leu Gly Phe Arg Lys Cys Gly Ser
35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ile

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<213> *Gymnema sylvestre*

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Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys

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Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Ile Asp Val Cys Cys Glu

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Pro Leu Glu Cys Leu Gly His Gly Leu Gly Tyr Ala Tyr Cys Gly Ser

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Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ile

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<211> 60

<212> PRT

<213> *Gymnema sylvestre*

<400> 101

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
 1 5 10 15

Val Lys Lys Asp Glu Leu Cys Asn Trp Val Thr Pro Met Arg Cys Glu
 20 25 30

Pro Leu Glu Cys Leu Gly His Gly Leu Gly Tyr Ala Tyr Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ile
 50 55 60

<210> 102

<211> 62

<212> PRT

<213> *Gymnea sylvestre*

<400> 102

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
 1 5 10 15

03-15-SEQLIST-1010

Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Ile Asp Val Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Leu Gly His Gly Leu Gly Tyr Ala Tyr Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ser Ala Ile
 50 55 60

<210> 103

<211> 62

<212> PRT

<213> *Gymnema sylvestre*

<400> 103

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
 1 5 10 15

Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Ile Asp Val Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Leu Gly His Gly Leu Gly Tyr Ala Tyr Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Tyr Ala Ser Ala Ile

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<210> 104

<211> 50

<212> PRT

<213> Gymnea sylvestre

<400> 104

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys

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Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Ile Asp Val Cys Cys Glu

20

25

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Pro Leu Glu Cys Leu Gly His Gly Leu Gly Tyr Ala Tyr Cys Gly Ser

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45

Gly Ile

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<213> Gymnema sylvestre

03-15-SEQLIST-1010

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Met His His His His His His Ser Asp Ser Ser Ser Gly Ser Gly Cys

1 5 10 15

Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Ile Asp Val Cys Cys Glu

20 25 30

Pro Leu Glu Cys Leu Gly His Gly Leu Gly Tyr Ala Tyr Cys Gly Ser

35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ser Ala Ile

50 55 60

<210> 106

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<212> PRT

<213> *Gymnema sylvestre*

<400> 106

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys

1 5 10 15

Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Ile Asp Val Cys Arg Glu

20 25 30

Pro Leu Glu Cys Leu Gly His Gly Leu Gly Tyr Ala Tyr Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ser Ala Ile
 50 55 60

<210> 107

<211> 52

<212> PRT

<213> Gymnea sylvestre

<400> 107

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
 1 5 10 15

Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Ile Asp Val Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Leu Gly His Gly Leu Gly Tyr Ala Tyr Cys Gly Ser
 35 40 45

Gly Ser Ser Gly
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<210> 108

<211> 49

<212> PRT

<213> Gymnea sylvestre

<400> 108

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
 1 5 10 15

Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Ile Asp Val Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Leu Gly His Gly Leu Gly Tyr Ala Tyr Cys Gly Ser
 35 40 45

Gly

<210> 109

<211> 58

<212> PRT

<213> Gymnea sylvestre

<400> 109

03-15-SEQLIST-1010

Leu His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys

1 5 10 15

Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Ile Asp Val Cys Cys Glu

20 25 30

Pro Leu Glu Cys Leu Gly His Gly Leu Gly Tyr Ala Tyr Cys Gly Ser

35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Asp Pro

50 55

<210> 110

<211> 50

<212> PRT

<213> Gymnea sylvestre

<400> 110

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys

1 5 10 15

Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Ile Asp Val Cys Cys Glu

20 25 30

Pro Leu Glu Cys Leu Gly His Gly Leu Gly Tyr Ala Tyr Cys Gly Ser

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Gly Asn

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<210> 111

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<212> PRT

<213> Gymnea sylvestre

<400> 111

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys

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Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Ile Asp Val Cys Cys Glu

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Pro Leu Glu Cys Leu Gly His Gly Leu Gly Tyr Ala Tyr Cys

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<210> 112

<211> 54

<212> PRT

<213> Gymnea sylvestre

03-15-SEQLIST-1010

<400> 112

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys

1 5 10 15

Val Lys Lys Asp Glu Leu Cys Glu Leu Ala Val Asp Glu Cys Cys Glu

20 25 30

Pro Leu Glu Cys Phe Gln Met Gly His Gly Phe Lys Arg Cys Gly Ser

35 40 45

Gly Ser Ser Gly Ser Asn

50

<210> 113

<211> 48

<212> PRT

<213> Gymnea sylvestre

<400> 113

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys

1 5 10 15

Val Lys Lys Asp Glu Leu Cys Phe Lys Arg Phe Ser Phe Cys Cys Glu

20 25 30

03-15-SEQLIST-1010

Pro Leu Glu Cys Leu Gly His Gly Leu Gly Tyr Ala Tyr Cys Gly Ser
 35 40 45

<210> 114

<211> 48

<212> PRT

<213> Gymnea sylvestre

<400> 114

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
 1 5 10 15

Val Lys Lys Asp Glu Leu Cys Phe Lys Arg Phe Ser Phe Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Leu Gly His Gly Leu Gly Tyr Ala Tyr Cys Gly Asn
 35 40 45

<210> 115

<211> 62

<212> PRT

<213> Gymnea sylvestre

<400> 115

03-15-SEQLIST-1010

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
1 5 10 15

Val Lys Lys Asp Glu Leu Cys Trp Ile Arg Phe Val Val Cys Cys Glu
20 25 30

Pro Leu Glu Cys Asp Cys Gly Thr Cys Met Phe Tyr Ser Cys Gly Ser
35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ser Ala Ile
50 55 60

<210> 116

<211> 62

<212> PRT

<213> Gymnea sylvestre

<400> 116

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
1 5 10 15

Val Lys Lys Asp Glu Leu Cys Ala Val Trp Phe Asp Val Cys Cys Glu
20 25 30

Pro Leu Glu Cys Thr Tyr Gln Ser Gly Tyr Tyr Trp Leu Cys Gly Ser
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35

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45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ser Ala Ile

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<210> 117

<211> 62

<212> PRT

<213> *Gymnea sylvestre*

<400> 117

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys

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Val Lys Lys Asp Glu Leu Cys Leu Thr Gln Thr Arg Ser Cys Cys Glu

20

25

30

Pro Leu Glu Cys Arg Phe Leu Arg Ser His Ala Arg Thr Cys Gly Ser

35

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Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ser Ala Ile

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<210> 118

<211> 62

<212> PRT

<213> *Gymnea sylvestre*

<400> 118

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys

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15

Val Lys Lys Asp Glu Leu Cys Arg Lys Arg Tyr Arg Val Cys Cys Glu

20

25

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Pro Leu Glu Cys Ile Leu Gln Phe Met Asn Lys Met Phe Cys Gly Ser

35

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45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ser Ala Ile

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<210> 119

<211> 62

<212> PRT

<213> *Gymnea sylvestre*

<400> 119

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Trp

1

5

10

15

03-15-SEQLIST-1010

Val Lys Lys Asp Glu Leu Cys Glu Pro Trp Tyr Trp Arg Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Val Tyr Thr Ser Gly Tyr Tyr Tyr Ser Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ser Ala Ile
 50 55 60

<210> 120

<211> 62

<212> PRT

<213> *Gymnea sylvestre*

<400> 120

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
 1 5 10 15

Val Lys Lys Asp Glu Leu Cys Ala Gly Ser Val Gly His Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Leu Arg Arg Phe Leu Asn Leu Arg Trp Cys Gly Ser
 35 40 45

03-15-SEQLIST-1010

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ser Ala Ile
 50 55 60

<210> 121

<211> 62

<212> PRT

<213> Gymnea sylvestre

<400> 121

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
 1 5 10 15

Val Lys Lys Asp Glu Leu Cys Ala Ser Arg Ile Trp Ala Cys Cys Gly
 20 25 30

Pro Leu Glu Cys Leu Met Arg Phe Met Ala Lys Arg Phe Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ser Ala Ile
 50 55 60

<210> 122

<211> 52

<212> PRT

<213> Gymnea sylvestre

03-15-SEQLIST-1010

<400> 122

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
1 5 10 15

Ala Lys Lys Asp Glu Leu Cys Ser Pro Ala Arg Arg Ile Cys Cys Glu
20 25 30

Pro Leu Glu Cys Leu Arg Arg Trp Tyr Glu Glu Ser Phe Cys Gly Ser
35 40 45

Gly Ser Ser Gly
50

<210> 123

<211> 62

<212> PRT

<213> *Gymnea sylvestre*

<400> 123

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
1 5 10 15

Val Lys Lys Asp Glu Leu Cys Thr Met Asn Glu Val Cys Cys Cys Glu

03-15-SEQLIST-1010
 20 25 30

Pro Leu Glu Cys Tyr Gly Asp Ile Ser Gly Glu Ala Met Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ser Ala Ile
 50 55 60

<210> 124

<211> 62

<212> PRT

<213> Gymnea sylvestre

<400> 124

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
 1 5 10 15

Val Lys Lys Asp Glu Leu Cys Ile Val Met Arg Ala Pro Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Leu Arg Arg Tyr Met Leu Lys His Met Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ser Ala Ile
 50 55 60

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<210> 125
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 <212> PRT
 <213> Gymnea sylvestre

<400> 125

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
 1 5 10 15

Val Lys Lys Asp Glu Leu Cys Lys Ala Phe Arg Tyr Ser Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Leu Arg Lys Trp Leu Lys Ala Arg Phe Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ser Ala Ile
 50 55 60

<210> 126
 <211> 55
 <212> PRT
 <213> Gymnea sylvestre

<400> 126

03-15-SEQLIST-1010

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
1 5 10 15

Val Lys Lys Asp Glu Leu Cys Val Ser Gly Leu Met Asn Cys Cys Glu
20 25 30

Pro Leu Glu Cys Leu Trp Arg Trp Met Gln Lys Gln Gln Cys Gly Ser
35 40 45

Gly Ser Ser Gly Ser Ser His
50 55

<210> 127

<211> 55

<212> PRT

<213> Gymnea sylvestre

<400> 127

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
1 5 10 15

Val Lys Lys Asp Glu Leu Cys Trp Arg Pro Ala Ile Thr Cys Cys Glu
20 25 30

03-15-SEQLIST-1010

Pro Leu Glu Cys Leu Arg Ile Tyr Met Arg Leu Trp Arg Cys Gly Ser
 35 40 45

Gly Ser Ser Gly Ser Ser Leu
 50 55

<210> 128

<211> 56

<212> PRT

<213> Gymnea sylvestre

<400> 128

Met His His His His His His Ser Gly Ser Ser Ser Gly Ser Gly Cys
 1 5 10 15

Val Lys Lys Asp Glu Leu Cys Ser Gln Leu Asp Ser Ala Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Val Trp Gln Asn Asp Asn Tyr Gly Thr Cys Gly Arg
 35 40 45

Ala Val Leu Gly Leu Ala His Pro
 50 55

<210> 129

<211> 50

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<400> 129

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Val Lys Lys Asp Glu Leu Cys Met Ser Met Val Gln Ile Cys Cys Glu

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35 40 45

Val His

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 35 40 45

Gly Ser Tyr
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<212> PRT

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Pro Leu Glu Cys Ser Trp Val Val Trp Phe Pro Tyr Ser Cys Gly Ser
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Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ser Ala Ile

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Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ser Ala Ile

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 50 55 60

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Gly Ser Ser Gly Ser Ser Leu Val Ala Tyr

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Pro Leu Glu Cys Asp Leu Phe Leu Thr Phe Leu Phe Leu Cys Gly Ser

35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Asn

50 55 60

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20 25 30

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Pro Leu Glu Cys Lys Tyr His Gly Tyr Phe Trp Leu Cys Gly Ser Ala
 35 40 45

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<212> PRT

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 35 40 45

Ala Val Leu Gly Leu Ala His Pro
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35 40 45

Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ser Ala Ile
50 55 60

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<211> 62

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<213> Gymnema sylvestre

<400> 141

Met His His His His His His Ser Asp Ser Ser Ser Gly Ser Gly Cys
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1 5 10 15

Val Lys Lys Asp Glu Leu Cys Val Trp Asn Ser Met Pro Cys Cys Glu
 20 25 30

Pro Leu Glu Cys Leu Arg His Arg Leu Leu Leu Arg Leu Cys Gly Ser
 35 40 45

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 50 55 60

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35 40 45

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35 40 45

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Val Lys Lys Asp Glu Leu Cys His Ala Trp Tyr Thr Phe Cys Cys Glu
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Gly Asn
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Gly Ser Ser Gly Ser Ser Leu Val Ala Ser Ala Ile
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20 25 30